

REMARKS

In response to the Office Action dated November 20, 2009, claims 1, 2, 12 and 28 have been amended. Claims 1-25, 27 and 28 are pending in the application.

In paragraph 5 on page 5 of the Office Action, claims 1-4, 7-16, 25, 27 and 28 were rejected under 35 U.S.C. § 102(e) as being anticipated by Ellis.

In paragraph 7 on page 16 of the Office Action, claims 5, 6 and 17-21 were rejected under 35 U.S.C. § 103(b) as being unpatentable over Ellis in view of Moeller.

In paragraph 8 on page 18 of the Office Action, claims 22-24 were rejected under 35 U.S.C. § 103(b) as being unpatentable over Ellis in view of Moeller, and further in view of Youden.

Applicant respectfully traverses the rejection, but in the interest of expediting prosecution has amended the claims. .

Independent claim 1 sets forth receiving audiovisual data from a desired transmission channel, if said audiovisual data is not compressed according to a predetermined format, compressing said received audiovisual data according to said predetermined format, in response to receiving a record request prior to a broadcast time of the audiovisual data, storing dynamically, in a mass storage device and for a predefined period of time, compressed audiovisual data received from said desired transmission channel to be included in a title plan generated by a time shift scheduler, wherein said title plan includes information identifying a plurality of content stored dynamically as compressed audiovisual data, wherein at least one of said plurality of content has a variable duration, wherein storing compressed audiovisual data dynamically comprises allocating a portion of memory in the mass storage device for recording a portion of the at least one of said plurality of content having the variable duration for

subsequent access by users utilizing a predetermined amount of said allocated portion of memory to record a portion of the at least one of said plurality of content having a variable duration, allocating an additional portion of memory in the mass storage device to record a next portion of the at least one of said plurality of content having the variable duration in response to utilizing said predetermined amount of said allocated portion of memory, determining when reception of the at least one of said plurality of content having the variable duration has terminated, repeating said utilizing and said allocating said additional portion of memory until at least one of said plurality of content having the variable duration is determined to have terminated so that all of said at least one of said plurality of content having a variable duration is stored and deallocating any allocated portion of memory not used to record the at least one of said plurality of content having a variable duration after at least one of said plurality of content having the variable duration is determined to have terminated. In response to a user request, said stored compressed audiovisual data is provided to said user beginning with a portion of said stored compressed audiovisual data having associated with it a first temporal parameter. Independent claims 2, 12 and 28 set forth similar elements.

In contrast, Ellis merely discloses a program guide system that records, at a remote server, programs and associated program guide data on storage in response to record requests generated by the program guide. The programs are recorded based on start/stop times; duration, channels and program identifiers.

Ellis also describes how recorded programs may be retrieved from the remote server for playback by a user. However, Ellis teaches that a remote media server continually prefetches the next 15 minutes of a previously recorded program as needed. The remote media server caches the first 15 minutes of content and streams the first 15 minute segment of the previously

recorded program to the user. As the user advances toward minute 15, the remote media server checks to see if minutes 15 to 30 of the previously recorded program are already cached. If they are, the cached copy of minutes 15 to 30 of the previously recorded program may be used for the user. If not, the media server prefetches and pre-decodes the next 15 to 30 minutes of the previously recorded program, so that the video stream to the user is not interrupted. The media server continually prefetches the next 15 minutes of data as the user advances toward the end streaming 15 minute segment. Thus, according to the Final Office Action, Ellis dynamically stores audiovisual data.

Thus, Ellis does not disclose, teach or suggest storing compressed audiovisual data dynamically as recited in the subsequent elements of the claims “in response to receiving a record request prior to a broadcast time of the audiovisual data.” Accordingly, pausing a live program does not equate to recording a program “in response to receiving a record request prior to a broadcast time of the audiovisual data.”

Moreover, Ellis does not disclose allocating a portion of memory for recording a portion of the content having the variable duration, utilizing a predetermined amount of the allocated portion of memory, allocating an additional portion of memory to record a next portion of the content having the variable duration and determining when reception of the at least one of said plurality of content having the variable duration has terminated. Rather, Ellis merely discloses recording a program based on start/stop times; duration, channels and program identifiers. Ellis does not incrementally allocate memory for dynamically storing a program in response to receiving a record request prior to a broadcast time of the audiovisual data. Ellis does not determine whether a program has terminated, but instead relies on timers or durations to set the recording time.

Still further, Ellis fails to suggest repeating said utilizing and said allocating said additional portion of memory until at least one of said plurality of content having the variable duration is determined to have terminated so that all of said at least one of said plurality of content having a variable duration is stored. Again, Ellis only records programs that are selected for recording prior to their broadcast times by using the duration of the program or the start/stop times of the program.

Ellis also fails to suggest deallocating any allocated portion of memory not used to record a variable length program. Instead, Ellis merely describes freeing memory by deleting a previously recorded program if certain parameters are not met, i.e., the program has not been accessed by a user for a predetermined period of time. However, deleting a recorded program is not the same as deallocating memory that was allocated for storing a program, but which was not needed/used to record the program.

Thus, Ellis fails to disclose, teach or suggest the invention as defined in independent claims 1, 2, 12 and 28.

Moeller fails to overcome the deficiencies of Ellis. Moeller is merely cited as disclosing storing a temporally sub-sampled version of the desired broadcast content to generate a fast-forward track and generating real-time encoded play tracks, fast forward tracks, rewind tracks, and entry point data (EPD) files associated with each track, wherein said fast-forward and rewind tracks forming said temporally adjusted content.

However, Moeller also does not disclose, teach or suggest storing compressed audiovisual data dynamically as recited in the subsequent elements of the claims “in response to receiving a record request prior to a broadcast time of the audiovisual data.”

Moeller also does not disclose allocating a portion of memory for recording a portion of the content having the variable duration, utilizing a predetermined amount of the allocated portion of memory, allocating an additional portion of memory to record a next portion of the content having the variable duration and determining when reception of the at least one of said plurality of content having the variable duration has terminated. Rather, Moeller merely discloses generating a fast-forward track, rewind tracks, and entry point data (EPD) files associated with each track.

Moeller does not incrementally allocate memory for dynamically storing a program in response to receiving a record request prior to a broadcast time of the audiovisual data. Moeller does not determine whether a program has terminated.

Still further, Moeller fails to suggest repeating said utilizing and said allocating said additional portion of memory until at least one of said plurality of content having the variable duration is determined to have terminated so that all of said at least one of said plurality of content having a variable duration is stored. Moeller also fails to suggest deallocating any allocated portion of memory not used to record a variable length program.

Thus, Ellis and Moeller, alone or in combination, fail to disclose, teach or suggest the invention as defined in independent claims 1, 2, 12 and 28.

Youden fails to overcome the deficiencies of Ellis and Moeller. Youden is merely cited as disclosing storing said fast-forward tracks in extents in front to back order and storing said rewind tracks in extents. However, Youden also does not disclose, teach or suggest storing compressed audiovisual data dynamically as recited in the subsequent elements of the claims “in response to receiving a record request prior to a broadcast time of the audiovisual data.”

Moreover, Youden does not disclose allocating a portion of memory for recording a portion of the content having the variable duration, utilizing a predetermined amount of the allocated portion of memory, allocating an additional portion of memory to record a next portion of the content having the variable duration and determining when reception of the at least one of said plurality of content having the variable duration has terminated. Rather, Youden merely discloses storing said fast-forward tracks in extents in front to back order and storing said rewind tracks in extents. Youden does not incrementally allocate memory for dynamically storing a program in response to receiving a record request prior to a broadcast time of the audiovisual data. Youden also does not determine whether a program has terminated.

Still further, Youden fails to suggest repeating said utilizing and said allocating said additional portion of memory until at least one of said plurality of content having the variable duration is determined to have terminated so that all of said at least one of said plurality of content having a variable duration is stored. Youden also fails to suggest deallocating any allocated portion of memory not used to record a variable length program. Instead, Youden only describes storing said fast-forward tracks in extents in front to back order and storing said rewind tracks in extents.

Thus, Ellis, Moeller and Youden, alone or in combination, fail to disclose, teach or suggest the invention as defined in independent claims 1, 2, 12 and 28.

Dependent claims 3-11, 13-25 and 27 are also patentable over the references, because they incorporate all of the limitations of the corresponding independent claims 2 and 12, respectively. Further dependent claims 3-11, 13-25 and 27 recite additional novel elements and limitations. Applicants reserve the right to argue independently the patentability of these

additional novel aspects. Therefore, Applicants respectfully submit that dependent claims 3-11, 13-25 and 27 are patentable over the cited references.

On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicant, David W. Lynch, at 865-380-5976. If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 13-2725 for any additional fee required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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